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days before hospitalization. Night before admission to our ward cranial nerve palsies suddenly occurred, as well as drowsiness. Neuro-ophthalmological exam revealed left hypertropia with lateral gaze palsy on the left side and papilloedema. Neurological examination revealed also a left peripheral facial nerve palsy. CT scan showed asymmetric dilatation of left ventricle, hydrocephalus and malposition of cranial catheter. No bone or brain anomalies were visualized. Emergency shunt revision was done immediately after admission – reposition of the ventricular catheter, and reconnection with the rest of the implanted system. The resolution of symptoms of intracranial hypertension was apparent after surgery. Graduate recovery of the abducens and trochlear nerve palsy have occurred in next three weeks, and facial nerve palsy 13 months after surgery. To the best of our knowledge, this is the first reported case of a patient with combined abducens, trochlear and peripheral facial nerve palsy resulting from malfunctioning ventriculoperitoneal shunt. Possible pathophysiological explanation could be a terminal neural decompensation as a consequence of progressive intracranial hypertension in patient with asymmetric high-pressure hydrocephalus.

Keywords: Abducens nerve palsy, Facial nerve palsy, Trochlear nerve palsy, Ventriculoperitoneal shunt

EP-0233 [Pediatric Neurosurgery » Others]

Anterior Temporal Lobectomy with Selective Amygdalohippocampectomy in Patient with Temporal Lobe Epilepsy Due to Focal Cortical Dysplasia: A Case Report

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Focal Cortical Dysplasia (FCD) is a neurodevelopment disorder which usually associates with intractable Temporal Lobe Epilepsy (TLE) in children. This kind of epilepsy is a difficult challenge for the treating pediatric neurologist. We reported a case of 4-year- old right handed male patient who was reffered to emergency department in our hospital with decrease of consciousness after seizure. The patients had history of refracter epilepsy since 3 years before. His brain MRI suggested an FCD. We then did Anterior Temporal Lobectomy (ATL) with selective amygdalohippocampectomy to the patient. There were no seizure and no complication after surgery (Engel classification scale Class I). We find that ATL with selective amygdalohippocampectomy is an effective and safe surgical option for pediatric patients with TLE due to FCD.

Keywords: Focal cortical dysplasia, Epilepsy, Anterior temporal lobectomy, Amygdalohippocampectomy, Pediatric neurosurgery

EP-0234 [Pediatric Neurosurgery » Others]

Recovered Landau–Kleffner Syndrome After Multiple Subpial Transection: Case Report

Franciele Pereira Dos Santos[1], Ana Cláudia Da Silva[1], Caroline Klovan[2], Augusto Valadão Junqueira[2], Rafael Silva Paglioli[2], Maurício Marchiori[2], Bruno Loz[2], Eliseu Paglioli[2], André Palmini[3]
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Landau–Kleffner syndrome (LKS) is a childhood disorder characterized by acquired aphasia, epileptiform electroencephalographic (EEG) abnormalities, cognitive impairment and global behavioral regression.Multiple subpial transection (MST) is an alternative to drug-resistant LKS, but the evidence is controversial as to the benefit on clinical outcome. In this study, we report the case of 4 years old patient with LKS submitted to MST in our service. The girl was born normal and reached all the milestones of development, including expressive language. The first symptoms manifested at 3 years, with focal seizures on the right cheek. Evolved with regression of language for aphasia of expression and behavioral change, characterized by irritability and agitation. EEG obtained in wakefulness before surgery presented a slow basal tracing to the left, spikes associated with slow waves in the left centrotemporal region that radiated to the contralateral homologous region and/or generalized accompanied by body movements and fixed stare.The seizures were controlled with drug therapy, but aphasia remained refractory to this treatment. Multiple subpial transection was performed in the left frontoparietal region guided by transoperative electrocorticography. Before surgery, transoperative electrocorticography showed almost continuous discharges in Broca's region, with extension, in smaller intensity, to Wernicke's region. After the MST there was a significant reduction of discharges in these regions. On the first postoperative day, there was a slight improvement in language, which evolved to complete sentences in two weeks.

Keywords: Landau–Kleffner syndrome, Multiple subpial transection, Neurosurgery

EP-0236 [Pediatric Neurosurgery » Others]

A Case of Intracranial Suppuration with Epidural, Subdural and Parafalcine Collections

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Despite the advances in modern neuroimaging techniques, neurosurgical techniques and newer generation antimicrobial agents, intracranial suppuration, (i.e. subdural empyemas and epidural abscesses), still remains a potentially fatal CNS infection to date. These pus collections still remain a formidable diagnostic and management challenge, often resulting in significant morbidity and mortality. In this case report, a description is made, of a case of a 10

Anterior Temporal Lobectomy with Selective Amygdalohippocampectomy in Patient with Temporal Lobe Epilepsy Due to Focal Cortical Dysplasia: A Case Report

Yunus Kuntawi Aji, Muhammad Arifin Parenrengi

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Abstract

Focal Cortical Dysplasia (FCD) is a neurodevelopment disorder which usually associates with intractable Temporal Lobe Epilepsy (TLE) in children. This kind of epilepsy is a difficult challenge for the treating pediatric neurologist. We reported a case of 4-year- old right handed male patient who was reffered to emergency department in our hospital with decrease of consciousness after seizure. The patients had history of refracter epilepsy since 3 years before. His brain MRI suggested an FCD. We then did Anterior Temporal Lobectomy (ATL) with selective amygdalohippocampectomy to the patient. There were no seizure and no complication after surgery (Engel classification scale Class I). We find that ATL with selective amygdalohippocampectomy is an effective and safe surgical option for pediatric patients with TLE due to FCD.

Keywords: focal cortical dysplasia, epilepsy, anterior temporal lobectomy, amygdalohippocampectomy, pediatric neurosurgery

OBJECTIVES

Focal Cortical Dysplasia is the most common cause of intractable epilepsy in children and adolescent, frequently associated with pharmacoresistant epilepsy .[1,2] In this group, resective surgery, if possible, is the treatment of choice. This report is aimed to present our successful experience in treating a patient with Temporal Lobe Epilepsy due to Focal Cortical Dysplasia which was managed surgically by Anterior Temporal Lobectomy with selective Amygdalohippocampectomy.

CASE

A right-handed 4-year-old boy was admitted to our emergency department with seizure since 4 days before. Seizure happens for 2.5 minutes eachtime and worsening everyday. The

patient had history of epilepsy for 3 years, controlled by medication. Neurological findings show Glasgow Coma Scale (GCS) score E4V2M5, pupil round equals, positive pupillary light reflexes, and no hemiparesis. Other findings were within normal limit. Brain Magnetic Resonance Imaging (MRI) shows focal cortical thickening with hyperintensity, blurred grey-white matter junction, and flag-like appearance under the sulcus of right temporal region, suggesting an FCD (picture 1). We assessed this patient with Temporal Lobe Epilepsy due to Focal Cortical Dysplasia.

Picture 1

MATERIALS-METHODS

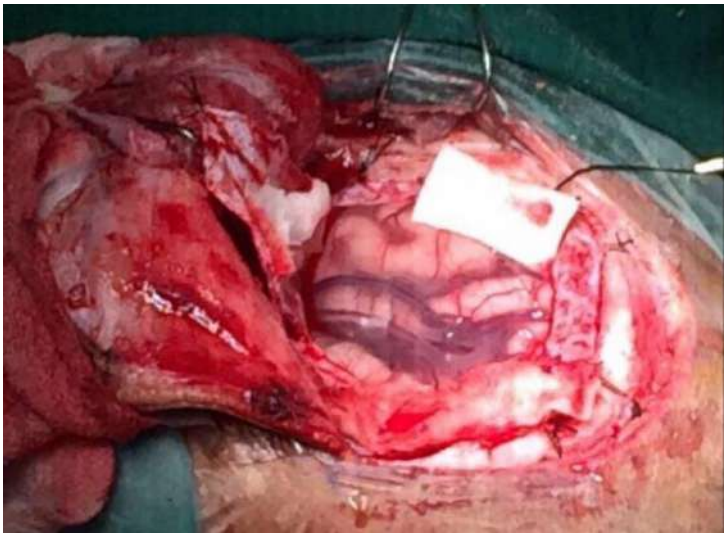
We performed Anterior Temporal Lobectomy with selective Amygdalohippocampectomy to this patient. After induction of general anesthesia, the patient was placed in supine position and the head was turned to the left. The scalp was incised with a question mark shape (picture 2). The temporal muscle was cut beside of the skin incision until zygomatic bone was exposed and flapped with the skin (picture 3). The frontotemporal craniotomy with five burr holes, dural incision with a U shape, and decompression of Sylvian cistern were made (picture 4 & 5). Then, we identified the right temporal lobe.

Lobectomy in the middle and inferior side of the right anterior temporal lobe and selective Amygdalohippocampectomy were done adequately (picture 6). Dura was sutured by fascia graft (picture 7). The free bone flap was returned with three pieces of miniplates. The craniotomy gap was filled by bone dust. The muscle and skin were closed in the usual fashion with drainage.

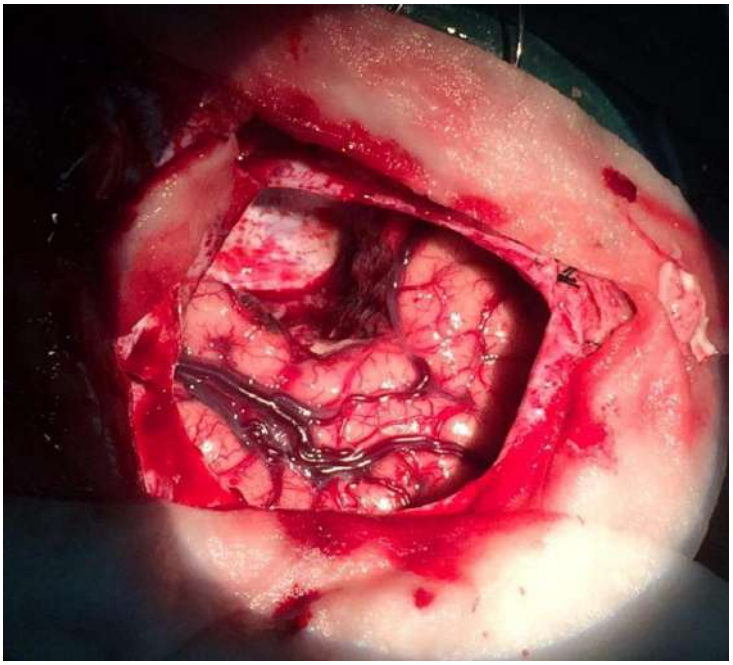
Picture 2

Picture 3

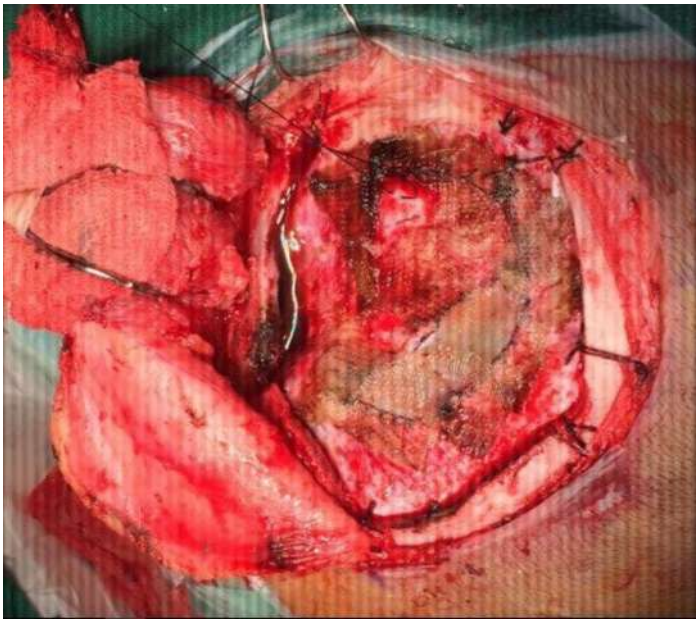
Picture 4



Picture 5



Picture 6



Picture 7

RESULTS

Postoperatively, the patient was routinely followed-up in our outpatient clinics. The patient shows an improvement during follow up, with no more seizure and no deterioration of memory, language, and cognitive functions (Engel's Outcome Classification Class I).

DISCUSSION

Focal Cortical Dysplasia is a subgroup of Malformation of Cortical Development, and is characterized by abnormal cortical lamination and dysmorphic neurons. It has been diagnosed in 20-25% of patients with symptomatic focal epilepsy.[3] In surgical series, Focal Cortical Dysplasia is a common pathologic finding with a reported presence in 8-53% of the operated epileptic patients.[4,5]

MRI is generally the imaging technique of choice for identifying the structural basis of Focal Cortical Dysplasia.[6] MRI systems operating at a higher magnetic field strength may have added value for epilepsy patients especially because they may have a higher sensitivity for Focal Cortical Dysplasia and decrease the number of MRI-occult Focal Cortical Dysplasias.[4] Imaging features included focal cortical thickening with T2/FLAIR hyperintensity, blurred and irregular grey-white matter junction, radial band of hyperintensity extending towards the lateral ventricle, subcortical white matter T2 bright areas, decreased signal on T1 of the subcortical white matter, and gyration anomalies.[4,7]

Surgical area was decided based on clinical findings, radiological findings, and electrophysiology results. The key of successful neurosurgical treatment is localizing the epileptic foci precisely.[2,9] Anterior Temporal Lobectomy was a treatment of choice to eliminate this kind of seizure effectively. Anterior Temporal Lobectomy with selective Amygdalohippocampectomy has proven efficacious for cessation of intractable seizures of medial temporal lobe origin.[10] Aggressive resection of these structures has been associated with improved surgical outcomes.

CONCLUSION

Anterior Temporal Lobectomy with selective Amygdalohippocampectomy may be the treatment of choice to eliminate seizure in patients with Temporal Lobe Epilepsy due to Focal Cortical Dysplasia. Surgical outcomes was measured by Engel's Outcome Classification. In our case, the patient shows good result after surgery (Engel's Class I, free from disabling seizures).